In the claims:

Please amend claims 1 through 7 as follows:

-- **1.** (**Amended**) A method for improving thermal process steps in the patterning of semiconductor wafers, in particular in rapid thermal processing (RTP) processes preferably during AA oxidation, sacrificial oxidation and GC sidewall oxidation, in which the wafer, in a process chamber, is heated to the process temperature at a predetermined heating rate and, after the envisaged process time has elapsed, is cooled again at a predetermined cooling rate, wherein the wafer is heated at a heating rate of approximately 12°C/sec up to a brief stabilization step at constant temperature and then up to the envisaged process temperature at a heating rate of 10°C/sec and, after the process time has elapsed, is cooled down to room temperature again at a predetermined low cooling rate.

2. (**Amended**) The method as claimed in claim **1**, wherein the stabilization step is raised to a temperature of 120°C below the process temperature.

3. (**Amended**) The method as claimed in claim **2**, wherein the temperature of the stabilization step is 1000°C.

4. (**Amended**) The method as claimed in claim **1**, wherein the wafer is cooled at a cooling rate of approximately 20°C/sec.

5. (**Amended**) The method as claimed in claim **4**, wherein the wafer, at least in the temperature range in which wafer distortions can occur, is cooled at the cooling rate of approximately 20°C/sec from the process temperature to 120° below the process temperature and is then cooled at a lower cooling rate.

6. (**Amended**) The method as claimed in claim **1** wherein a flushing step at the start of the recipe is shortened to an extent such that the process chamber is sufficiently flushed with process gas.

7. (**Amended**) The method as claimed in claim **1** wherein the cooling step at the end of the recipe is set in such a way that the exit temperature from the process chamber is 600°C. --

Please consider additional claims 8-15:

-- **8.** (**New**) A method for controlling temperature of a semiconductor wafer in a process chamber, said method comprising:

heating said chamber from a starting temperature to a stabilizing temperature at a heating rate of approximately 12 degrees Celsius per second;

maintaining said chamber at said stabilizing temperature for a selected stabilization period;

heating said chamber from said stabilizing temperature to a process temperature at a heating rate of approximately 10 degrees Celsius per second;

maintaining said chamber at said process temperature for a selected processing period; and

cooling said chamber from said process temperature to an exit temperature at a selected low cooling rate.

9. (**New**) The method of claim **8**, further comprising selecting said stabilizing temperature to be approximately 89 percent of said process temperature.

10. (**New**) The method of claim **8**, further comprising selecting said stabilizing temperature to be approximately 120 degrees Celsius below said process temperature.

11. (**New**) The method of claim **10**. further comprising selecting said stabilizing temperature to be approximately 1000 degrees Celsius.

12. (**New**) The method of claim **8**, wherein cooling said chamber comprises selecting said cooling rate to be approximately 20 degrees per second.

13. (**New**) The method of claim **8**, wherein cooling said chamber comprises cooling said chamber at a first cooling rate until said chamber is at a critical temperature above which wafer distortions can occur, and cooling said chamber at a second cooling rate between said critical temperature and an exit temperature, said second cooling rate being lower than said first cooling rate.

NE 14. (**New**) The method of claim **8**, wherein cooling said chamber comprises selecting said exit temperature to be approximately 600 degrees Celsius.

NE 15. (**New**) The method of claim **8**, further comprising shortening a flushing step to an extent such that said process chamber is sufficiently flushed with process gas. --